APPENDIX B: PROJECT DESIGN DESCRIPTION, TYPICALS AND PROJECT SITE PHOTOS

Part 1. Installation of Rock and Log Cross-Vein 35 ft Dowstream of Rainy Dam

Specifications: One cross-vein will be installed at the riffle crest downstream of the Rainy Dam spillway. The vein will be installed at a throat elevation that is ~10-14 inches higher than the current bed elevation. The vein will be built using large rock (min 36" diameter). Large trees (>16" diameter) may be incorporated if practicable. Footer rocks will be keyed below max scour depth.

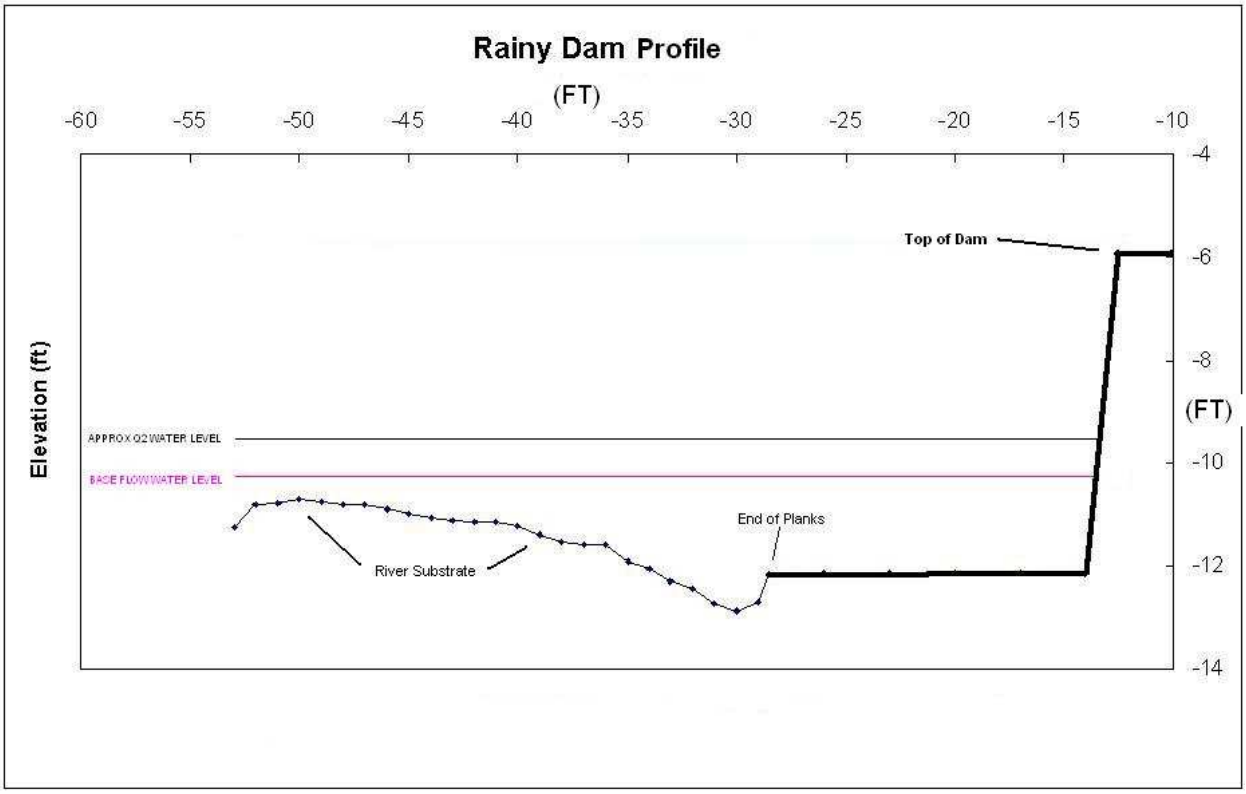
Cross-vein wings will be positioned at a 30-35 degree angle relative to the bank line and a downward slope of 6%-8% towards the center of the stream. Logs and rocks would be anchored well into the stream banks at or above the Q2 elevation. The elevation of the 'throat' or center of the structure would be controlled using large boulders set just higher than the current streambed elevation. The throat and log wings would be stabilized with footer rocks (downstream side) and filter fabric with stream substrate (upstream side) to reduce erosion and settling potential.

Typical completed cross-vein applications

Part 2. Maintenance - Installation of Rock Rip Rap to Stabilize Rainy Dam Wing Walls

Specifications: Class III and IV angular rip rap (3-4 ft mean diameter) will be collected onsite from several locations near

the stream channel and within 100 yds of the dam. Rip rap will be installed at a 1.5:1 slope behind and in front of existing wing-walls, and keyed in a minimum of 2.5 ft (below maximum scour depth) at the toe. Total rip rap installed will not exceed 10 cy on each wing wall and will not extend into the channel more than 3 ft as to not affect channel capacity. See photo for placement locations.


Rainy Dam Profile
(FT)
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-4
-6
-8
-10
-12
-14
(FT)
Elevation (ft)
Top of Dam
APPROX Q2 WATER LEVEL
BASE FLOW WATER LEVEL
End of Planks
River Substrate